

CLAIMS

WHAT IS CLAIMED IS:

1. A clipless bicycle pedal system comprising:

2 a spindle;

first and second engagement components mounted on said spindle adjacent one
4 another, but forming a gap between at least portions of said engagement components;
and

6 first and second biasing members directly coupled to said first and second
engagement components, respectively,

8 wherein said biasing members axially force said engagement components
towards one another tending to minimize the gap there between;

10 thereby providing a releasable engagement for a shoe-mounted cleat having a
projecting latch member sized to be engaged by said gap.

2. The pedal system of Claim 1 wherein said gap between said engagement

2 components is continuous, thereby providing a uniformed, infinitely-sided pedal platform for
engagement of said cleat projecting latch member around the spindle.

3. The pedal system of Claim 1 wherein said biasing members are springs.

4. The pedal system of Claim 1 wherein said engagement components are generally

2 cylindrical.

5. The pedal system of Claim 1 wherein said engagement components are capable of

2 rotating on said spindle about its axis.

6. The pedal system of Claim 1 wherein said engagement components are capable of

2 side-to-side motion on said spindle, thereby providing the pedal with axial float.

7. The pedal system of Claim 1, said engagement components are similar to one

2 another, each comprising a hollow cylindrical core and a flared out portion concentric with and

radially extending from said core,

4 wherein the gap is between the edges of the flared out portions.

8. The pedal system of claim 1, wherein said pedal system comprising:

2 engagement components have a hollow cylindrical core and a flared out portion

concentric with and radially extending from said core, said flared out portions forming

4 an engagement trench with said cylindrical core for engaging a cleat on a rider's shoe.

9. The pedal system of claim 1, further comprising:

2 a cleat having a projecting latch member sized to engage the gap between the

pedal first and second engagement components, and the cleat is attachable to a

4 conventional bicycle shoe.

10. The bicycle pedal system of claim 8, wherein said cleat further comprises a disk on

2 which said latch is mounted; and

said disk is attachable to the forward portion of the sole of the shoe; and,

4 said disk is configured such that the user may rotate his or her foot while the

cleat is engaged in the pedal.

11. A clipless bicycle pedal system comprising:

2 a pedal including a spindle;

at least one engagement component mounted on said spindle, said engagement

4 component having a constant gap entirely around said spindle forming a uniformed

infinitely sided platform; and

6 a cleat capable of engaging with said gap at any side of said platform.

12. The clipless bicycle pedal system of Claim 11, comprising first and second

2 engagement components mounted on said spindle, wherein said cleat is configured for

engagement between said engagement components, said components being spring biased to a

4 closing position wherein the components are forced against one another and said gap is

minimized.

13. The clipless bicycle pedal system of Claim 11, said engagement component

2 capable of side-to-side motion with respect to the axis of said spindle, providing axial float

when said cleat is engaged.

14. The clipless bicycle pedal system of Claim 11, said engagement component and
2 spindle being formed from titanium.

15. The clipless bicycle pedal system of Claim 11, further comprising a cylindrical
2 bearing mounted between said spindle and said engagement component, said cylindrical
bearing having a smooth surface for allowing the engagement component to slide with respect
4 to the axis of said spindle.

16. The clipless bicycle pedal system of Claim 11, said cleat comprising a latch having
2 a wide head that is generally rounded to guide the pedal into engagement position.

17. The clipless bicycle pedal system of Claim 11, said cleat being coupled to a shoe
2 worn on a rider's foot, and said engagement components and cleat being configured such that
said rider is capable of twisting his/her foot while engaged in said pedal.

18. A method of engaging and disengaging a bicycle shoe to a bicycle pedal
2 comprising:

providing a bicycle having a pedal mounted to a spindle with engagement
4 components biased together to minimize the gap there between, the gap of constant
width around the spindle;

6 providing a shoe-mounted cleat having a projecting member sized to engage the
gap between the engagement components;

8 pressing the cleat projecting member against the gap between the pedal
engagement components anywhere around the spindle, thereby moving of said pedal to
10 an open position; and

12 further pressing said cleat against the pedal to latch said cleat projecting member
thereby engagement component positions to a closed position, wherein substantially
14 twisting said cleat projection member to axially force apart said pedal engagement
components thereby widening said gap and allowing said bicycle shoe to disengage
from said pedal.